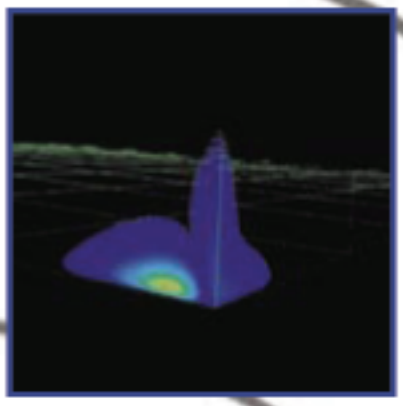
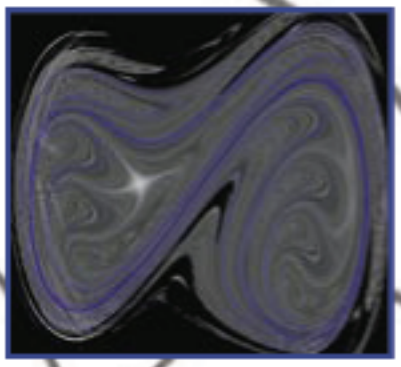
THEORETICAL DIVISION
at Los Alamos National Laboratory

Annual Self-Assessment 2004–2005

LA-UR-05-2732 April 2005





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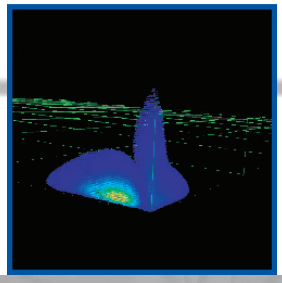
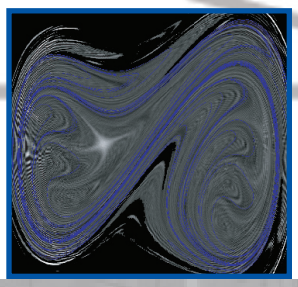


About the Cover

Our cover shows a few images from our research in 2004–2005.

The figure on the left shows the radial part of the ground state of lithium on a 3-D lattice. This ground state represents the starting point for the real time propagation. For more information, see the paper "Time-Dependent Studies of Photoionization of Light Systems: Beyond Two-Electron Systems," by James Colgan (T-4) on page 20 in Theoretical Division Research Highlights 2005, A Supplement to the Division Annual Self Assessment (Research Highlights 2005).

The middle figure shows the classical manifold structure superimposed on the quantum Wigner function. For more information, see the paper "Semiclassics and Topological Aspects of the Quantum-Classical Transition," by Salman Habib (T-8), Benjamin Greenbaum (Columbia University), Kosuke Shizume (University of Tsukuba), and Bala Sundaram (City University of New York) on page 100 in Research Highlights 2005.

The figure on the right shows a photograph of the Advanced Industrial Computer, Inc., PC Hot-Swap Chassis (Parallel ATA and Serial ATA) as discussed in the paper "Software Technology to Enable Reliable High-Performance Distributed Disk Arrays," by Michael S. Warren, Chris L. Fryer, M. Patrick Goda, and Ryan Joseph (T-6) on page 70 in Research Highlights 2005.